

AMENDMENTS TO THE SPECIFICATION:

On page 1 after the title, please insert the following:

RELATED APPLICATIONS

This application is a divisional of U.S. Patent Application No. 10/181,374, filed October 7, 2002, which is the National Stage of International Application No. PCT/JP01/11514, which claims priority of Japanese Application Nos. 2000-404981 and 2001-127248.

Please amend the paragraph on page 7, beginning at line 25 as follows:

FIG. 1 is a front view schematically showing a polyhedron inspection apparatus according to one embodiment of the present invention, FIG. 2 is a top plan view showing principal parts of the polyhedron inspection apparatus shown in FIG. 1, FIG. 3 is a perspective view schematically showing a passage forming member and a rotating feed section, FIG. 4 is an enlarged plan view showing the rotating feed section, FIG. 5 is an enlarged perspective view showing the rotating feed section, FIG. 6 is a cross sectional view taken along a line A-A of FIG. 4, FIG. 7 is a cross sectional view taken along a line B-B of FIG. 4, ~~FIG. 8 is a groove~~ FIGs. 8(a) - 8(j) are sectional ~~views~~ [[view]] views ~~showing a state that an inspection object rotates~~ rotating on an upstream side rotating feed section, ~~FIG. 9 is a groove~~ FIGs. 8(k) - 8(t) are sectional ~~views~~ [[view]] views ~~showing a state that an inspection object rotates~~ rotating on a downstream side rotating feed section, FIG. 9(A) is a top plan view schematically showing an arrangement of nozzle for keeping an estranged state between chips, and FIG. 9(B) is a front view schematically showing the arrangement of FIG. 9(A). FIG. 10 is a perspective view schematically showing a positional relation between a camera and a suction pipe when inspecting an inspection object, and FIG. 11 is an enlarged sectional view taken along an arrow line C-C of FIG. 2~~[[,]]~~ ~~and FIG. 12(A) is a top plan view schematically showing an arrangement of nozzle for keeping a estranged state between chips, and FIG. 12(B) is a front view schematically showing FIG. 12(A).~~

Please amend the paragraph on page 11, beginning at line 8 as follows:

The upstream and downstream side rotating feed sections 25A and 25B are formed into the same shape, and are longitudinally combined with each other in this embodiment. The chip W is rotated at an angle of 90° by one of these rotating feed sections 25A or 25B, and thus, can be rotated at an angle of 180° by the combination of these rotating feed sections 25A and 25B. Further, as shown in FIG. 3 to FIG. 7, the upstream and downstream side rotating feed sections 25a and 25B are individually formed with a V-letter groove region 25a, a U-letter groove region 25b and a V-letter groove region 25c in succession from the upstream side toward the downstream side. These groove regions 25a to 25c, are formed into a shape such that each inclined angle of left and right inclined surfaces LS and RS changes along the moving direction of the chip W. More specifically, as shown in FIG. 4, FIG. 6 and FIG. 7, the bottom corner C of the V-letter groove region 25a positioned on the upstream side linearly extends over a predetermined length at the approximately central portion in the widthwise direction of the upstream side rotating feed section 25A. Further, the bottom corner C extends so as to slightly rise up while shifting to the right inclined surface RS side from the midway. In this case, the right and left inclined surfaces RS and LS are explanatory concept specified using the corner C as boundary, and not specified using the center of groove width as boundary. In the V-letter groove region 25a, the right inclined surface RS is formed so as to gradually change from the initial inclination of 45° to an angle of approximately 90° , as shown in FIG. 6 and FIG. 8(a) to FIG. 8(e). On the other hand, in the left inclined surface LS is formed two-stage inclined surface such that its upper portion is bent at a position of being slightly shifted to the chip moving direction from the initial inclination of 45° . Further, the inclined surface on the lower stage side gradually becomes small in its inclined angle, and thereby, one surface of the chip W, that is, the surface S3 of the chip W in [[FIG. 8]] FIGs. 8(a) - 8(f) gradually becomes a horizontal state just before it reaches the U-letter groove region 25b.

Please amend the paragraph on page 17, beginning at line 20 as follows:

As shown in FIG. 2 and ~~FIG. 12~~ FIGs. 9(A) - 9(B), nozzles 50A, 50B and 50C are arranged

on the passage forming member 22 at the vicinity of each upstream side of the second to fourth cameras 13B, 13C and 13D, respectively. Air is jetted out of these nozzles 50A to 50C, and thereby, the feed of the chip W is facilitated; therefore, an estranged state between the chips W is kept. By doing so, it is preferable that the interval between the chips W is not made narrow.

Please amend the paragraph on page 17, beginning at line 29 as follows:

Subsequently, the inspection method of chip W in this embodiment will be detailedly described below with reference to ~~FIG. 8 and FIG. 9~~ FIGs. 8(a) - 8(t). In this case, ~~FIG. 8 is a~~ FIGs. 8(a) - 8(j) are cross sectional ~~[[view]]~~ views showing ~~a state that~~ the chip W moving on the groove 23 of the rotating feed section 25A positioned on the upstream side ~~changes in its position~~. ~~FIG. 9 is a~~ FIGs. 8(k) - 8(t) are cross sectional ~~[[view]]~~ views showing ~~a state that~~ the chip W ~~[[is]]~~ moving on the groove ~~[[23]]~~ of the rotating feed section ~~[[25A]]~~ 25B positioned on the downstream side.

Please amend the paragraph on page 19, beginning at line 9 as follows:

On the other hand, the chip W, which is determined as being non-defective by the first and second cameras 13A and 13B, is moved to the rotating feed sections 25A and 25B. Then, in the upstream side rotating feed section 25A, as shown in ~~[[FIG. 8]]~~ FIGs. 8(a) - 8(j), the surface of the chip W positioned in the V-letter groove region 25a is kept at an angle of approximately 45°. At that time, the uppermost positioned corner of the chip W is shown by a square blacked mark ■ in ~~[[FIG. 8]]~~ FIGs. 8(a) - 8(t), and this position is set as angle of 0°. When the chip W is moved from the V-letter groove region 25a to the U-letter groove region 25b (see FIG. 8(f)), the chip W is rotated by an angle of 45°, and then, is moved from the U-letter groove region 25b to the V-letter groove region 25c (see FIG. 8(j)), and thereby, is further rotated by an angle of 45°. Thus, the chip W is rotated from the initial angle 0° to 90°. This state coincides with the initial position where the chip W is moved to the downstream side rotating feed section 25B, as shown in FIG. ~~[[9(k)]]~~ 8(k) connected to the downstream side rotating feed section 25B. In the

downstream side rotating feed section 25B, the chip W is rotated by an angle of 90° (see, FIGs. 8(k) - 8(t)), like the upstream side rotating feed section 25A; as a result, the chip W is rotated by an angle of 180° by combining two rotating feed sections 25A and 25B.

Abstract:

Please replace the current Abstract with the following replacement/new Abstract

AMENDMENTS TO THE DRAWINGS:

The attached replacement sheet(s) of drawings include(s) changes to original Figs. 8, 9, 12(A) and 12(B).

The replacement sheet, which includes Figs. 8(a)-8(j), replaces the original sheet originally labeled as FIG. 8. The original label "FIG. 8" has been deleted. The original labels (a)-(j) have been changed to FIG. 8(a) - FIG. 8(j), respectively.

The replacement sheet, which includes Figs. 8(k)-8(t), replaces the original sheet originally labeled as FIG. 9. The original label "FIG. 9" has been deleted. The original labels (k)-(t) have been changed to FIG. 8(k) - FIG. 8(t), respectively.

The replacement sheet, which includes Figs. 9(A)-9(B), replaces the original sheet originally labeled as FIGs. 12(A)-(B). The original labels 12(A) and 12(B) have been changed to 9(A) and 9(B), respectively.

Attachment: Replacement Sheets
Annotated Sheets Showing Changes